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10/733,734	12/11/2003	Giora Biran	FIS920030290US1	8413
23550 7590 01/25/2008 HOFFMAN WARNICK & D'ALESSANDRO, LLC 75 STATE STREET 14TH FLOOR ALBANY, NY 12207			EXAMINER MUSA, ABDELNABIO	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hwdpatents.com

## Office Action Summary

Application No.

10/733,734

Applicant(s)

BIRAN ET AL.

Examiner

Abdelnabi O. Musa

Art Unit

2146

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Acknowledgment is made for the applicant's response and amendment filed on 10/26/2007.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim(s) 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craft et al. Patent No. (US. 7,124,205 B2) and in view of Boyd et al Pub. No. (US 2004/0049600 A1)

As per **claim 1**, Craft et al teach a method of handling a data transfer in a network interface controller (NIC) ( a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60) the method comprising the steps of:

a) receiving the data transfer wherein the data transfer is denoted as one of a first type and a second type (first packet includes first data and second packet includes a second data Col. 37, Line 27; Col. 37, Line 44; Col. 44, Line 10; FIGs. 5, 17. 26 ) ;

b) calculating a cyclical redundancy check (CRC) for the data transfer (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61), wherein the CRC is one of valid and invalid (the NIC validate the packet Col. 8, Line 10; FIG. 3); and

c) based on a comparison between a transfer control protocol (TCP) segment length and a marker with protocol data unit alignment (MPA) length and validity of a CRC of a direct data placement (DDP) segment within the data transfer, conducting one of:

1) dropping the data transfer and not confirming reception (dropping the received data Col. 23, Line 8; Col. 40, Line 50) ;

2) placing the data transfer to a reassembly buffer of the NIC (the NIC queues the packets in a reassembly buffer Col. 22, Line 67); and

3) placing the data transfer to an internal buffer of the NIC for direct data placement to a destination buffer (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4-49; Col 14, Line 17; FIGs. 1-3)

Craft et al. does not teach the specifics wherein the CRC is one of valid and invalid and handling the data transfer based on validity of CRC of a DDP segment or go into details in the CRC calculation also does not teach the specifics on the comparison between a transfer control protocol (TCP) segment length and a marker with protocol data unit alignment (MPA) length. However, Boyd et al teach the data transferred contains cyclic redundancy check (CRC) for ensuring only valid data segment are delivered and no corrupted contents are delivered. CRC calculation is used for error checking and handling data transferred based on validity of CRC or DDP segment also

teaches the compression of data segments between a transfer control protocol (TCP) length and a marker with protocol data unit alignment (MPA) length [0039] [0080] [0100] [0150] [FIG. 4] [FIG. 16]

It would have been obvious to a person having ordinary skilled in the art at the time the invention was mad to have modified Craft et al. by the teaching of Boyd et al. a cyclical redundancy check (CRC) is intended for error calculation and use valid data segment for data transfer. One must implement valid data based on output from CRC of a DDP, data transfer is based on its type of segment whether TCP length segment or MPA length.

As per **claim 2**, Craft et al. teach the method of claim 1 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60) , wherein step c), 2) (the NIC queues the packets in a reassembly buffer Col. 22, Line 67) is conducted in the case that the data transfer is of the first type (first packet response is used to identify the data transferred Col. 40, Line 3-26; Col 39, Line 49; FIGs. 9, 11, 17, 25).

As per **claim 3**, Craft et al. teach the method of claim 1 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), further comprising the step of determining whether the data transfer includes a single or multiple direct data placement (DDP) segments (the NIC performs

determination of message type before transferring the data Col. Col. 17, Line 17; FIG. 3).

As per **claim 4**, Craft et al. teaches the method of claim 3 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein step c), 3) (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4,49; Col 14, Line 17; FIGs. 1-3) is conducted in the case that the data transfer includes multiple DDP segments (NIC processes the multiple packets and multiple TCP, IP Col. 18, Line 7) and all DDP segments have a valid CRC (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61) that is fully contained in a TCP segment (the TCP headers are validated before processing Col 16, Line 16; FIG. 3).

As per **claim 5**, Craft et al. teaches the method of claim 3 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line 50) is conducted in the case that the data transfer includes multiple DDP segments (NIC processes the multiple packets and multiple TCP, IP Col. 18, Line 7), a first DDP segment has an invalid CRC (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61), and a DDP header of the first DDP segment is referred by an MPA length associated with a previous DDP segment (the TCP headers length are validated before processing Col 16, Line 16; FIG. 3).

As per **claim 6**, Craft et al. teaches the method of claim 5 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein, in the case that the data transfer includes multiple DDP segments (NIC processes the multiple packets and multiple TCP, IP Col. 18, Line 7), a first DDP segment has an invalid CRC transfer (the header packets are processed and undergo cyclical redundancy checking in the NIC Col. 2, Line 61), and the DDP header of the first DDP segment is not referred by the MPA length associated with the previous DDP segment (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25):

step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line 50) is conducted in the case that the DDP header is referred by an MPA marker (TCP headers contains flags for reset and fin that may cause the processor Col. 16, Line 17; FIG. 11); and

step c), 2) (the NIC queues the packets in a reassembly buffer Col. 22, Line 67) is conducted in the case that the DDP header is not referred by the MPA marker (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25).

As per **claim 7**, Craft et al. teaches the method of claim 3 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line

50) is conducted in the case that the data transfer includes multiple DDP segments (NIC processes the multiple packets and multiple TCP, IP Col. 18, Line 7) and a last DDP segment extends outside of the TCP segment boundary (adapter that have the ability to process several types of protocols over TCP Col. 14, Line 40; FIG. 9); and

step c), 2) (the NIC queues the packets in a reassembly buffer Col. 22, Line 67) is conducted in the case that the data transfer includes multiple DDP segments (NIC processes the multiple packets and multiple TCP, IP Col. 18, Line 7) and a last DDP segment does not extend outside of the TCP segment boundary (adapter that have the ability to process several types of protocols over TCP Col. 14, Line 40; FIG. 9).

As per **claim 8**, Craft et al. teaches the method of claim 2 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein step c), 2) (the NIC queues the packets in a reassembly buffer Col. 22, Line 67) is conducted in the case that the data transfer includes a single DDP segment (data maybe transferred from one NIC to another which involves a single transfer Col. 13, Line 10; FIG. 6) and an MPA length associated with the single DDP segment (TCP headers contains flags for reset and fin that may cause the processor Col. 16, Line 17; FIG. 11) is greater than a transmission control protocol (TCP) segment length of the data transfer (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25).



As per **claim 9**, Craft et al. teaches the method of claim 2 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein step c), 3) (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4,49; Col 14, Line 17; FIGs. 1-3) is conducted in the case that the data transfer includes a single DDP segment (data maybe transferred from one NIC to another which involves a single transfer Col. 13, Line 10; FIG. 6) that has: an MPA length associated therewith that equals a TCP segment length (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25) and a valid CRC (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61).

As per **claim 10**, Craft et al. teaches the method of claim 2 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line 50) is conducted in the case that the data transfer includes a single DDP segment (data maybe transferred from one NIC to another which involves a single transfer Col. 13, Line 10; FIG. 6) that has: an MPA length associated therewith that equals a TCP segment length (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25), an invalid CRC and a DDP header (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61) that is referred by an MPA length associated with a previous DDP segment (the NIC

performs determination of message type before transferring the data Col. Col. 17, Line 17; FIG. 3).

As per **claim 11**, Craft et al. teaches the method of claim 2 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein in the case that the data transfer includes a single DDP segment (data maybe transferred from one NIC to another which involves a single transfer Col. 13, Line 10; FIG. 6) that has: an MPA length associated therewith that equals a TCP segment length (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25), an invalid CRC and a DDP header that is not referred by an MPA length associated with a previous DDP segment (the header packets are processed and undergo cyclical redundancy checking in the NIC Col. 2, Line 61):

step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line 50) is conducted in the case that the DDP header is referred by an MPA marker (TCP headers contains flags for reset and fin that may cause the processor Col. 16, Line 17; FIG. 11); and

step c), 2) (the NIC queues the packets in a reassembly buffer Col. 22, Line 67) is conducted in the case that the DDP header is not referred by an MPA marker (the network sequencer validates the header length received and checksums the header Col. 15, Line 51; FIGs. 10, 11, 25).

As per **claim 12**, Craft et al. teaches the method of claim 1 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), further comprising the step of setting the data transfer type to the first type when step c), 2) is conducted (first packet response is used to identify the data transferred Col. 40, Line 3-26; Col 39, Line 49; FIGs. 9, 11, 17, 25).

As per **claim 13**, Craft et al. teaches the method of claim 1 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein in the case that step c), 3) (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4,49; Col 14, Line 17; FIGs. 1-3) is conducted on an out-of-order data transfer (the processor in the NIC checks for fragmented or out of order packets Col. 11, Line 3; Col. 22, Line 66) , the method further comprises the steps of:

clearing TCP hole information created by the out-of-order data transfer in a connection context (packet processing sequencer clears bits from the summary queue Col. 35, Line 45; FIG 25); and

stopping receipt reporting for the out-of-order data transfer (protocol management that control the NIC access to the network and receipt of packets Col. 14, Line 66; Col. 14, Line 35; FIGs 1, 10).

As per **claim 14**, Craft et al. teaches the method of claim 1 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20,

Line 9-60), wherein the data transfer includes DDP segments (the NIC performs determination of message type before transferring the data Col. Col. 17, Line 17; FIG. 3), and the calculating step includes calculating a CRC for all DDP segments of the data transfer together (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61).

As per **claim 15**, Craft et al. teaches the method of claim 14 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein the data transfer does not contain an MPA marker (processing data transfer, Abstract; FIGs. 3-4, 28).

As per **claim 16**, Craft et al. teaches the method of claim 14 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), further comprising the steps of: storing a number of retransmission attempts for each data transfer including an error; and storing a largest sequence number (file server that stores and retrieves files Col. 1, Line 58; Col. 6, Line 41; Col. 20, Line 27 FIG. 3).

As per **claim 17**, Craft et al. teaches the method of claim 16 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein in the case that CRC is invalid for the data transfer (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61), which indicates the

data transfer is a newly received error-including data transfer (the packet control sequencer includes all information and any errors or data overflow in the buffer Col. 16, Line 47; FIGs. 10-11):

step c), 2) (the NIC queues the packets in a reassembly buffer Col. 22, Line 67) is conducted on the newly received error-including data transfer in the case that the number of retransmission attempts exceeds a maximum retransmission attempt number for that data transfer (the packet control sequencer for error processing before transmitting or storing in buffer Col. 16, Line 47; FIGs. 10-11), and

step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line 50) is conducted on the newly received error-including data transfer in the case that the number of retransmission attempts does not exceed a maximum retransmission attempt number for that data transfer (the packet control sequencer for error processing before transmitting or storing in buffer Col. 16, Line 47; FIGs. 10-11); and

wherein in the case that step c), 1) (dropping the received data Col. 23, Line 8; Col. 40, Line 50) is conducted, the method further comprises the steps of:

increasing the number of retransmission attempts for the newly received error-including data transfer by one (error control in each phase for error handling Col. 28, Line 7, 29; Col. 40, Line 61) that ; and

updating the largest sequence number to carry the largest sequence number among at least one previously received error-including data transfer and the newly received error-including data transfer (error control in each phase for error handling Col. 28, Line 7, 29; Col. 40, Line 61).

As per **claim 18**, Craft et al. teaches the method of claim 16 (a network interface device for data transfer in a network, Abstract, Col. 1, Line 60; Col. 10, Line 30; Col. 20, Line 9-60), wherein in the case that CRC is valid for an in-order data transfer (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61):

a) in the case that a sequence number of the in-order data transfer is greater than the stored largest sequence number (the communication control block 'CCB' maintains state information such as number of messages and order of packets that have been processed Col. 9, Line 13; Col. 11, Line 4; FIGs. 2-4), the number of retransmission attempts is reset and step c), 3) is conducted (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4,49; Col 14, Line 17; FIGs. 1-3); and

b) in the case that the sequence number of the in-order data transfer is not greater than the stored largest sequence number (the communication control block 'CCB' maintains state information such as number of messages and order of packets that have been processed Col. 9, Line 13; Col. 11, Line 4; FIGs. 2-4), step c), 3) is conducted (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4,49; Col 14, Line 17; FIGs. 1-3).

Regarding claims 19-36 are related to the same limitation set for hereinabove, where the difference used is the phrase 'method' is used hereinabove in the claims, the citations from the prior art has been inserted where's necessary. Furthermore, the

wordings of the claims were interchanged within the claim itself and this change does not effect the limitation of the above treated claims. The claim's limitations seemed to be repeated in many claims throughout the application. Even in the above treated claims many of the statements were repeated from previously written claims within the application. Even though claims 19-36 have been differently written from the above treated claims, yet the limitations did not change. As mentioned, claim 19 is the same as claim 1 where the only difference is 'storage means' that was explained in claim 16 whereas claim 20 is the same as claim 2, claim 21 is the same as claim 3, claim 22 is the same as claim 4, claim 23 is the same as claim 5, claim 24 is the same as claim 6, claim 25 is the same as claim 7, claim 26 is the same as claim 8, claim 27 is the same as claim 9, claim 28 is the same as claim 10, claim 29 is the same as claim 11, claim 30 is the same as claim 12, claim 31 is the same as claim 13, claim 32 is the same as claim 14, claim 33 is the same as claim 15, claim 34 is the same as claim 16, claim 35 is the same as claim 17, claim 36 is the same as claim 18.

As per **claim 37**, Craft et al. teach a computer program product comprising a tangible computer useable medium having computer readable program code embodied therein, which, when executed by a computer infrastructure, enables the computer infrastructure to handle a data transfer in a network interface controller (NIC), the program product (a computer program that contain instructions to run applications Col. 4, Line 24- 64; FIG. 27; Col. 38, Line 4) comprising:

program code configured (Col. 32, Line 41) to receive the data transfer wherein the data transfer is denoted as one of a first type and a second type (first packet includes first data and second packet includes a second data Col. 37, Line 27; Col. 37, Line 44; Col. 44, Line 10; FIGs. 5, 17, 26 );

program code configured (Col. 32, Line 41) to calculate a cyclical redundancy check (CRC) for the data transfer, wherein the CRC is one of valid and invalid (the packets undergo cyclical redundancy checking in the NIC Col. 2, Line 61),

program code configured (Col. 32, Line 41) to conduct, based on a comparison between a transfer control protocol (TCP) segment length and a marker with protocol data unit alignment (MPA) length and

validity of a CRC of a direct data placement (DDP) segment within the data transfer, one of:

1) dropping the data transfer and not confirming reception (dropping the received data Col. 23, Line 8; Col. 40, Line 50);

2) placing the data transfer to a reassembly buffer of the NIC (the NIC queues the packets in a reassembly buffer Col. 22, Line 67); and

3) placing the data transfer to an internal buffer of the NIC for direct data placement to a destination buffer (frame buffers for receiving and transmitting packets to a network Col. 7, Line 21; Col. 10, Line 4, 49; Col. 14, Line 17; FIGs. 1-3)

Craft et al. does not teach the specifics wherein the CRC is one of valid and invalid and handling the data transfer based on validity of CRC of a DDP segment or go into details in the CRC calculation also does not teach the specifics on the comparison



between a transfer control protocol (TCP) segment length and a marker with protocol data unit alignment (MPA) length. However, Boyd et al teach the data transferred contains cyclic redundancy check (CRC) for ensuring only valid data segment are delivered and no corrupted contents are delivered. CRC calculation is used for error checking and handling data transferred based on validity of CRC or DDP segment also teaches the compression of data segments between a transfer control protocol (TCP) length and a marker with protocol data unit alignment (MPA) length [0039] [0080] [0100] [0150] [FIG. 4] [FIG. 16]

It would have been obvious to a person having ordinary skilled in the art at the time the invention was mad to have modified Craft et al. by the teaching of Boyd et al. a cyclical redundancy check (CRC) is intended for error calculation and use valid data segment for data transfer. One must implement valid data based on output from CRC of a DDP, data transfer is based on its type of segment whether TCP length segment or MPA length.

As per **claim 38**, Craft et al. teaches the program product of claim 37, further comprising program code configured to set the data transfer type to the first type when the conducting program code conducts c), 2) (first packet response is used to identify the data transferred Col. 40, Line 3-26; Col 39, Line 49; FIGs. 9, 11, 17, 25)

As per **claim 39**, Craft et al. teaches the program product of claim 37, further comprising program code configured to clear TCP hole information in a connection

context and stop receipt reporting (packet processing sequencer clears bits from the summary queue Col. 35, Line 45; FIG 25) for an out-of-order data transfer upon which the conducting program code conducts c), 3) (the processor in the NIC checks for fragmented or out of order packets Col. 11, Line 3; Col. 22, Line 66)

As per **claim 40**, Craft et al. teaches the program product of claim 37, wherein the conducting program code conducts c), 2) in the case that the data transfer is of the first type (first packet response is used to identify the data transferred Col. 40, Line 3-26; Col 39, Line 49; FIGs. 9, 11, 17, 25)

### ***Response to Amendment***

3. Applicant's arguments with respect to claim(s) 1-40 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

4. Applicant's arguments with respect to the above presented claims have been considered but are moot in view of the new ground(s) of rejection.

**THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelnabi O. Musa whose telephone number is 571-2701901. The examiner can normally be reached on Monday Thru Friday: 7:30am to 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on 571-2726798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



JEFFREY PWU  
SUPERVISORY PATENT EXAMINER